

### III. REMARKS

Claims 1-27 are pending in this application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1-3, 10-15, 22-13, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Anderson et al. (US patent no 6,154,576), hereafter "Anderson," in view of Deering (US patent no. 6,489,956), hereafter "Deering." This rejection is respectfully traversed for the reasons stated below.

As an initial comment, Applicants note that Anderson is still cited as the primary reference and Deering as the secondary reference as observed in the previous response. However, the "new" rejection continues to discuss Anderson as though it is Deering, i.e., the primary reference. For example, paragraph 5 *et seq.* references column 23 of Anderson, but Anderson does not contain that many columns. Applicants also note that the Office has provided a second PTO-892 form citing Anderson and Deering, which may lead to duplicate citations on the patent's front page. See paper no. 3, which also includes a PTO-892 citing Deering and Anderson. Applicants also noticed that the patent number for Anderson is incorrectly noted as 5,151,576 rather than 5,154,576 on the second PTO-892. As in the previous Response, Applicants have addressed the rejection based on the above observations.

With regard to claims 1, 10, 23 and 26, the Office asserts that Deering teaches weighted sums of data points (col. 23, line 50 to col. 24, line 44) and that the weighting depends on a skew angle (col. 19, line 43 to col. 20, line 13, and in Fig. 13). Applicants respectfully submit that the Office is misinterpreting Deering, and that the rejection is improper because of this misinterpretation.

09/816,318

8

Deering uses a filtering technique that assigns a number of test sites, referred to as "samples," across an image to be processed to create output pixels for a display effect. Weighting factors for each output pixel are based on these samples. As will be explained below, however, the samples' positions are predetermined based on a "sample positioning scheme," and have no relation to the position of the initial image. Accordingly, the weighting factors used in Deering have no connection to the position, e.g., skew angle, of the initial image. In contrast, the claimed invention includes, *inter alia*, "creating a rotated image that is substantially free of aliasing error using weighted sums of data points of the first image, wherein weighting depends on a skew angle of the first image and data point location in the first image." Claim 1.

Turning to the details of the Office's rejection, the Office re-states Deering's disclosure at col. 19, line 43 to col. 20, line 13 and Fig. 13, to substantiate the assertion that Deering bases the weighting factors on skew angle. However, the Office is misinterpreting Deering's disclosure. The description to which the Office refers relates to the arrangement or "schemes" of samples that Deering uses to build output pixels. The "sample positioning schemes" are shown in FIG. 8, and represent illustrative regular and irregular ("perturbed") layouts for sampling of an image. Deering states that the samples within a "scheme" can be "offset by a random angle (e.g., 0° to 360°) and a random distance, or by random x and y offsets." Col. 19, lines 47-49. The offset, apparently, is relative to a center of an output pixel to be built based on the samples. As best understood, the sample positioning scheme is overlayed on an initial image so that sampling of the image to generate output pixels can be completed. However, the sample positioning scheme does not relate to the position of the initial image in any fashion. Accordingly, it is impossible for Deering to consider a skew angle of the initial image.

In terms of weighting factors and sample evaluation, according to col. 23, lines 60-64, Deering evaluates a "bin," which is "a region or area in screen-space [that] contains however many samples are in that area." Col. 17, lines 48-50. Samples within a bin that are within a "convolution filter" for an output pixel are assigned a weighting factor, which the sample is multiplied by. Fig. 13, steps 258, 260, and col. 24, lines 45-63. The final output pixel's color value is based on the summed running total for the weighted sample. Col. 23, lines 29-33. The weighting factors ensure that the samples located the closest to the output pixel center will contribute the most, while pixels located the farthest from the pixel center will contribute the least to the final output pixel values. A careful review of col. 24, lines 45 to col. 25, line 1, provides an example of this processing in which samples closer to the center of an output pixel are assigned higher weighting "filter" values, e.g., 8, while samples away from the center are assigned lower values, e.g., 2. See Fig. 14, and col. 24, lines 45 to col. 25, line 1.

With regard to determination of the weighting factors, Deering explains that the weighting can be determined based on: a table lookup based on a filter extent (i.e., apparently a distance from a sample to center of output pixel); a table lookup based on filter extent (distance from center) squared; or a function of x and y. Col. 23, line 65 to col. 24, line 8. The x and y function appears to refer to the samples offset from the output pixel center. See col. 19, lines 46-50.

In view of the foregoing, Applicants respectfully submit that the Office is misinterpreting Deering. In Deering, sample positioning schemes are predetermined and overlayed on an image, and have no relation to the initial image. The weighting factors in Deering are based on a sample's relation to the center of a desired output pixel, and NOT the position or skew angle of

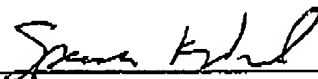
the initial image. Anderson fails to overcome this shortcoming. Accordingly, Applicants request withdrawal of the rejection.

With regard to the Office's other arguments regarding dependent claims, Applicants do not agree with the Office's assertions. However, for brevity, Applicants will forego addressing each of these rejections individually, but reserve their right to do so should it become necessary.

Applicants appreciate the indication that claims 4-9, 16-21, 24-25 and 27 would be allowable if rewritten in independent form. However, as discussed above, Applicants do not believe that is necessary.

Applicants respectfully submit that the application is in condition for allowance. Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, he is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

  
Spencer K. Warnick  
Reg. No. 40,398

Date: November 18, 2003

Hoffman, Warnick & D'Alessandro LLC  
Three E-Comm Square  
Albany, New York 12207  
(518) 449-0044  
(518) 449-0047 (fax)

09/816,318

11